

Point of Wounding Care



Point of Wounding Care

- 90% of all battlefield casualties die before they reach definitive care.
- Point of wounding care is the responsibility of the individual soldier, his battle buddy, the Combat Lifesaver, and the Combat Medic.

Point of Wounding Care

- Causes of death on the battlefield:
 - Penetrating head trauma 31%
 - Uncorrectable torso trauma 25%
 - Potentially correctable torso trauma 10%
 - ***Exsanguination from extremity wounds 9%**
 - Mutilating blast trauma 7%
 - ***Tension pneumothorax 5%**
 - ***Airway problems 1%**

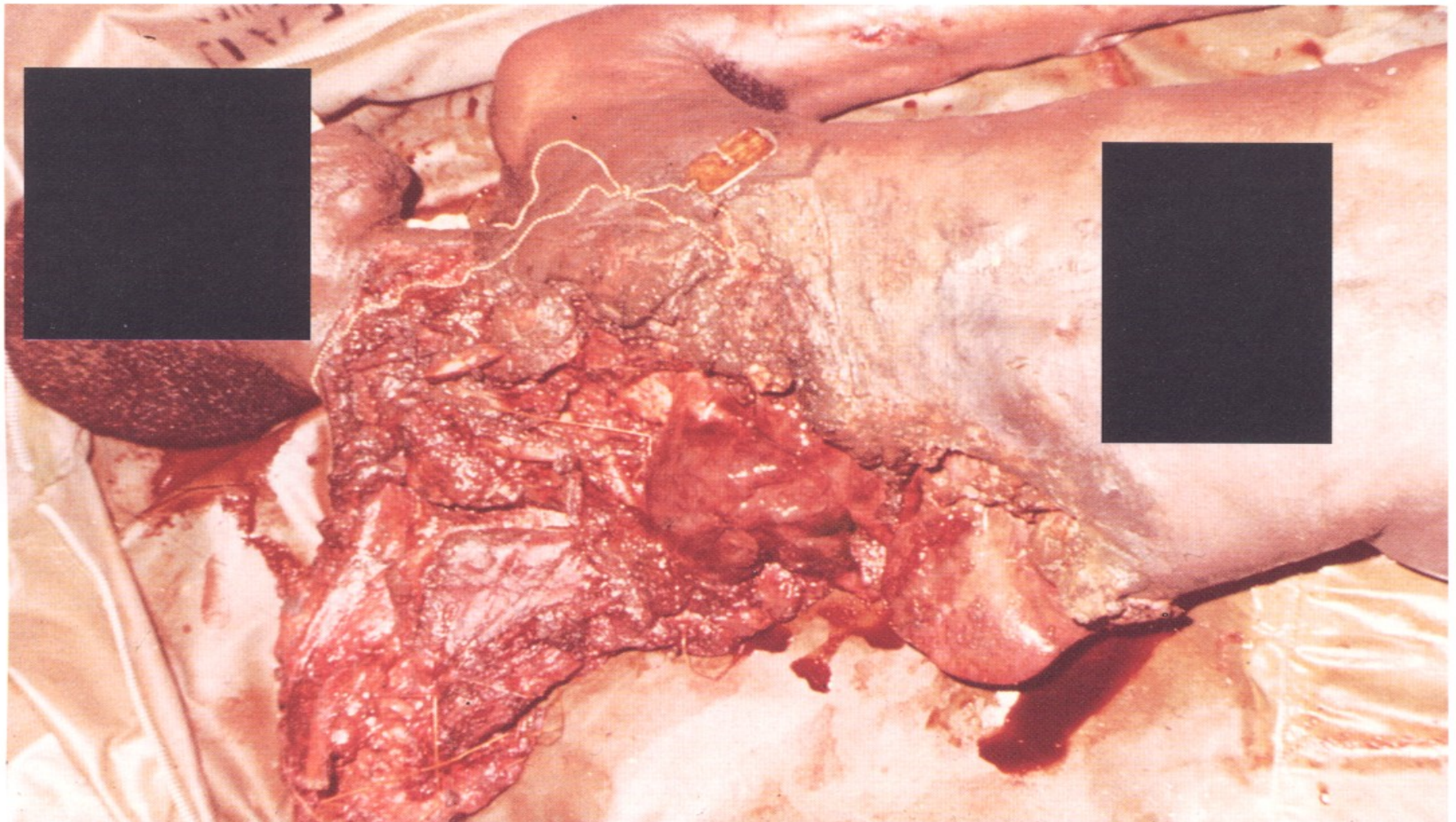
Penetrating Head Trauma



Penetrating Torso Trauma



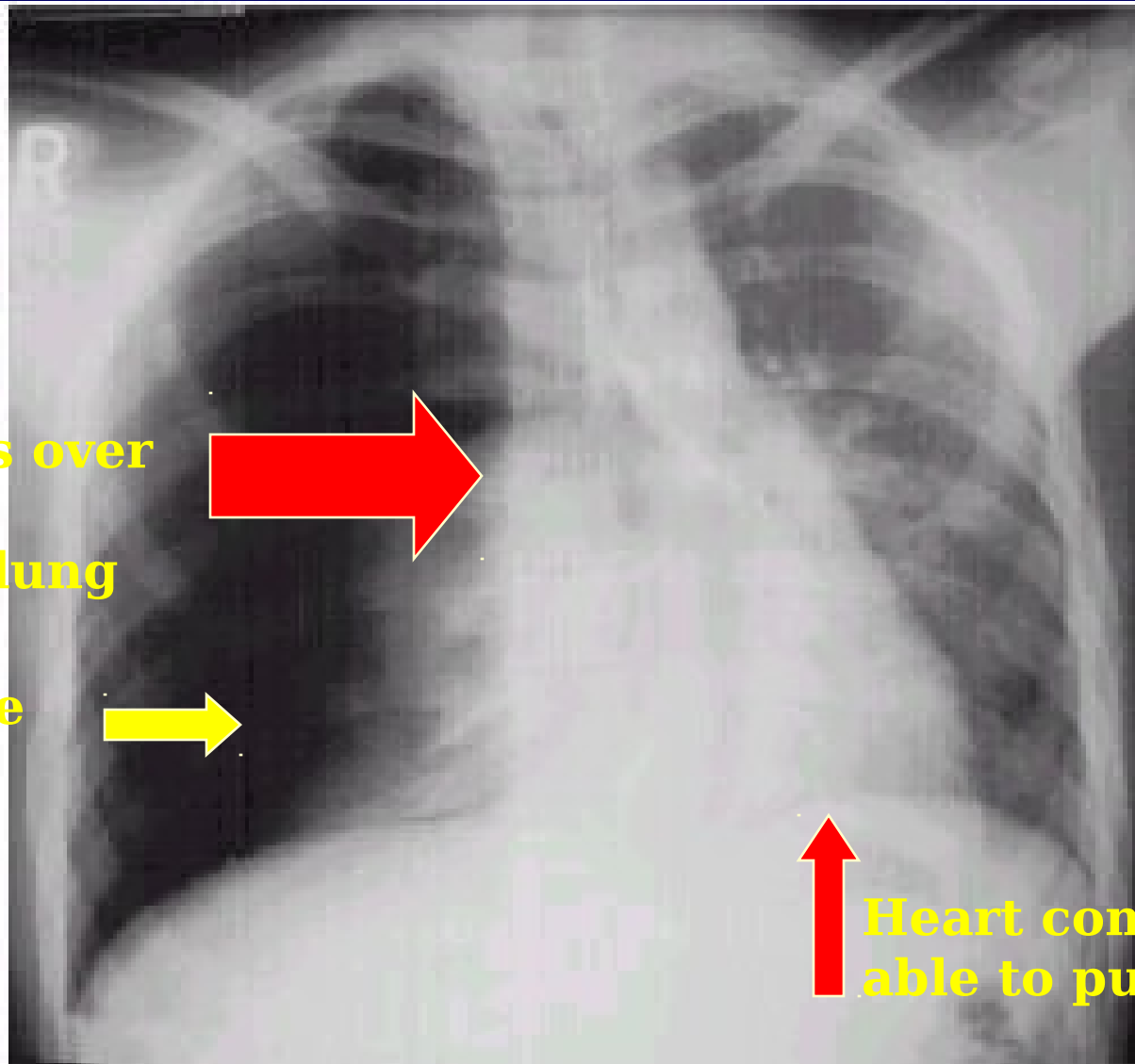
Mutilating Blast Trauma



Extremity Hemorrhage



Tension Pneumothorax



**Air pushes over
heart and
collapses lung**

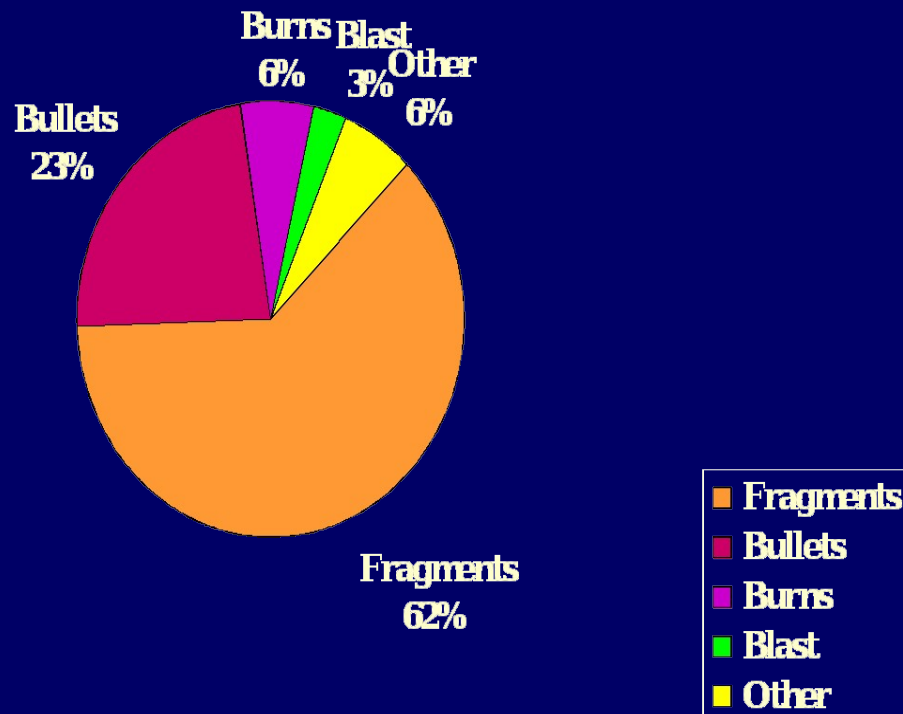
**Air outside
lung from
wound**

**Heart compressed not
able to pump well**

Airway Trauma



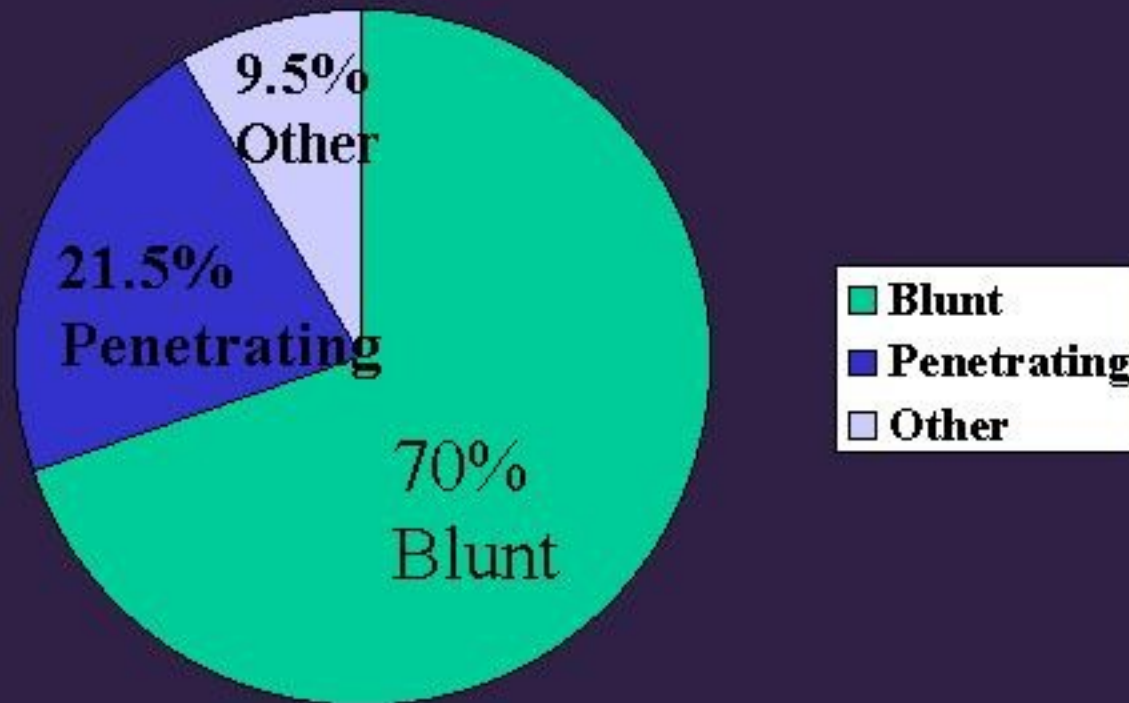
Causes of Combat Wounds



(WWI, WWII, Korea, Vietnam, Middle East)

Epidemiology of Civilian Trauma

Trauma
Patients
Treated
In
Montreal
Canada



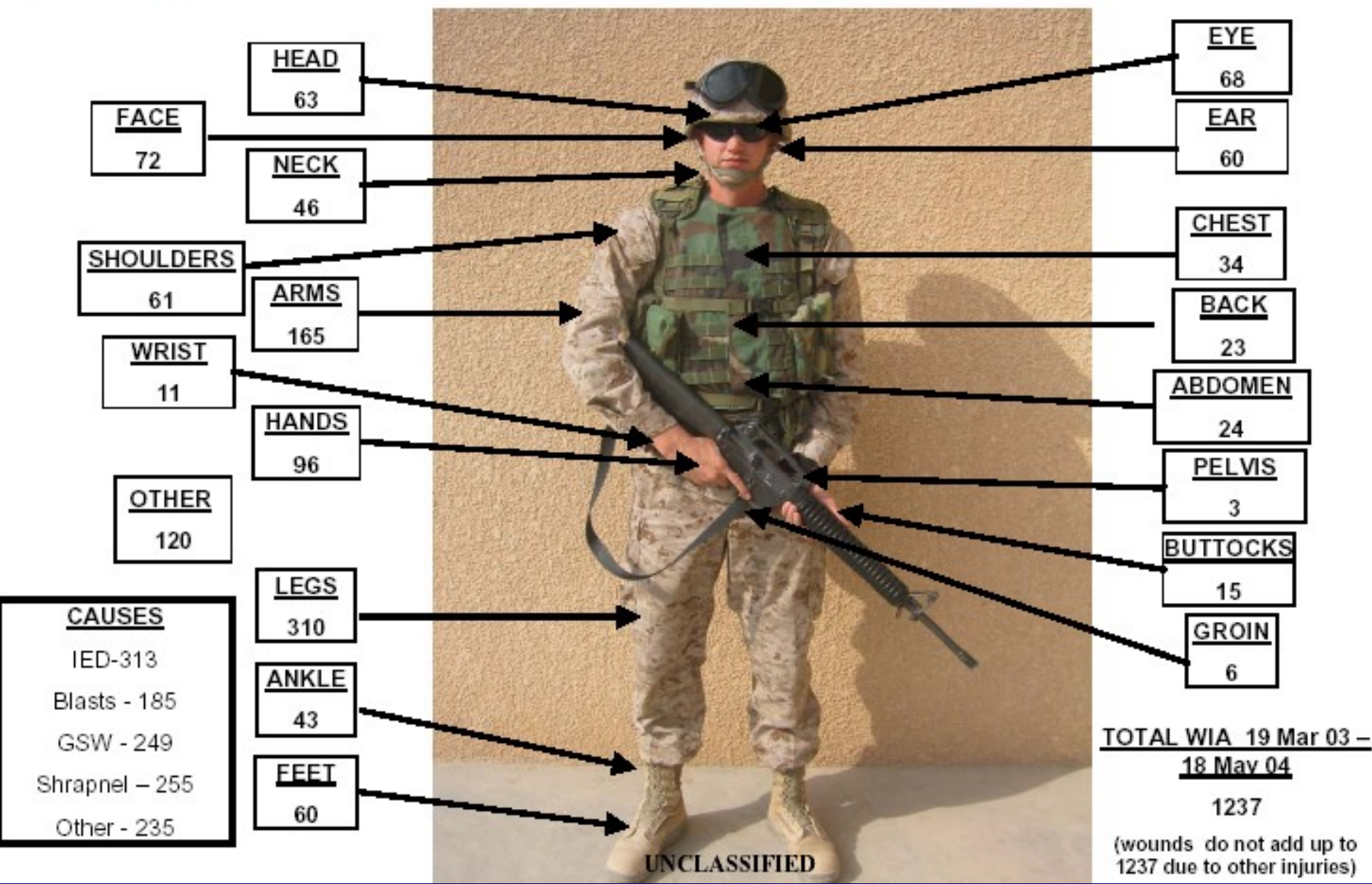
*Tamim H, Joshep L, Mulder D, et al: Field triage of trauma patients: Improving on the Prehospital Index
Am J of Emerg Med Vol 20(3) 2002*



UNCLASSIFIED

WIA WOUNDED AREAS

19 March 2003 – 18 May 2004



Point of Wounding Care

- Primary causes of preventable death
 - Hemorrhage from extremity wounds
 - Tension pneumothorax
 - Airway problems

Point of Wounding Care

- Historically, combat injuries result from more traumatic mechanisms such as penetration, blast, and burn as compared to a higher incidence of blunt force trauma seen in the civilian pre-hospital environment. We have also seen that for combat casualties who survive the initial injury event, approximately 15% die from potentially correctable causes before reaching a definitive care facility: exsanguination from an extremity wound (9%), tension pneumothorax (5%), and airway occlusion (1%).

Point of Wounding Care

- There needs to be a shift in our thinking, the days of not providing self aid and laying there and yelling “*Medic*” are over. We must have the ability to assess our own wounds, provide self or buddy aid if needed, and continue the mission if able. The bottom line is a soldier capability at the point of wounding, who is equipped and trained to decrease preventable battlefield death. This strategy will increase the unit’s combat effectiveness and it’s survivability. If we could make some minor changes in our common soldier medical skills training, we can improve the survival rate of 15% of all battlefield deaths.

Self aid/ Buddy aid

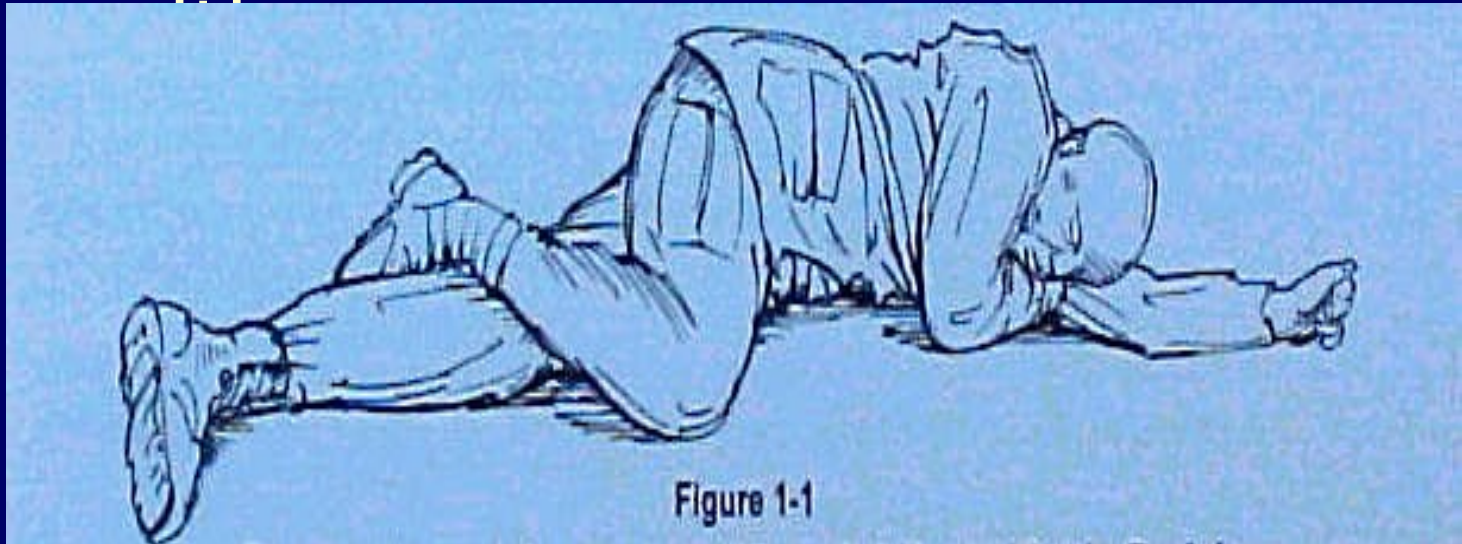
- Rapid Casualty Assessment
- Control Hemorrhage
- Treat penetrating chest trauma
- Maintain airway
- Package casualty for transport

Assessment Task

- Perform a rapid casualty initial assessment:
- Airway
- Breathing
- Circulation

Airway Tasks

- Provide Airway support in an unconscious casualty using a NPA
- Place the casualty in the recovery



Nasopharyngeal Airway



Breathing Tasks

- Place an occlusive dressing, or an Asherman Chest Shield, on a penetrating chest wound
- Relieve a tension pneumothorax (as necessary) by needle chest decompression in an already existing penetrating chest wound.

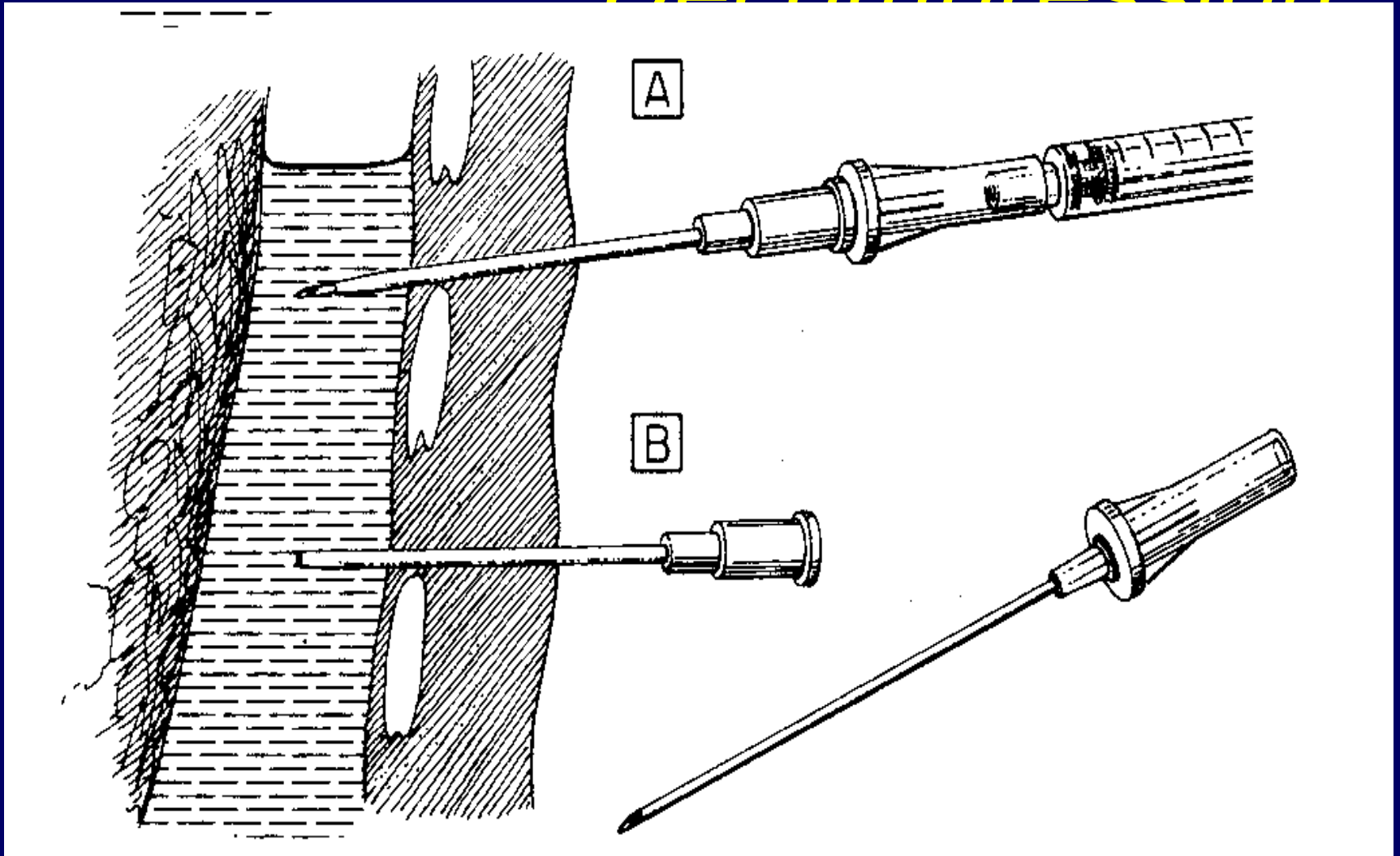
"Asherman Chest Seal"



Needle Chest Decompression

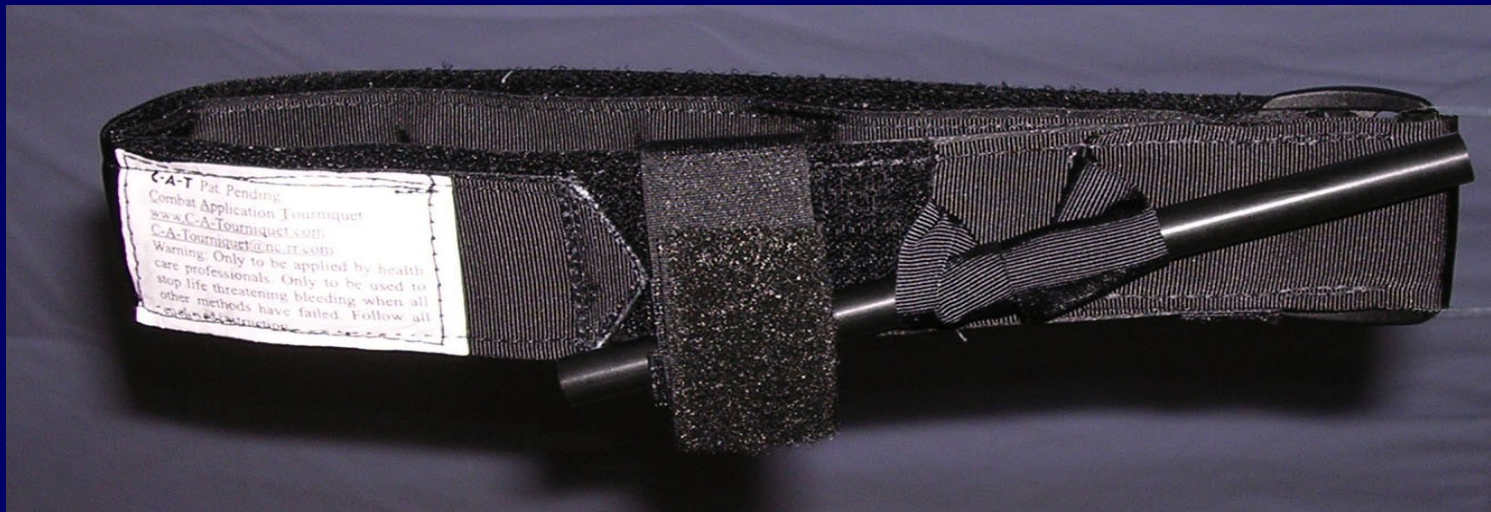


Needle Chest Decompression



Bleeding Tasks Self aid

- Control hemorrhage using a tourniquet, or an emergency trauma bandage (Israeli bandage).



Combat Application Tourniquet

Hemorrhage Control



- The Army has modified the medical tasks trained during Basic Combat Training that should address these issues. However, the soldier must be provided with an upgraded “First-aid Kit” that will provide the required medical supplies to render that care.

Improved First Aid Kit

Israeli Pressure
Dressing (IPD) aka:
Trauma Dressing
\$4.20

4"
Kerlix
\$.98

Nasopharyngeal
Airway (NPA)
\$ 1.66

2" Tape
\$1 .
38

Exam Gloves
(4) \$.32

Weight: 1.08 lbs

Cube: 128 ci



Combat Application
Tourniquet (CAT)
\$27.28

14g
Needle
\$
2.50

MOLLE Type
Pouch
\$ 15.00
(max)

1 ea. Trauma Dressing (commonly referred to as the Israeli Dressing), NSN 6510-01-492-2275, unit cost approximately \$4.20.

2. 1 ea 4" Kerlix (NSN 6510-00-105-5807, unit cost \$0.70)

3. 1 ea Combat Application Tourniquet (NSN 6515-01-521-7976), unit cost \$18.00

4. 1 ea Nasopharyngeal Airway (NPA) (unit cost approximately \$2.50)

5. 1 ea 14 gauge by 3" catheter (to relieve a tension pneumothorax; unit cost approximately \$1.50) **Not recommended in initial issue, may be added by unit.**

6. 1 roll 2" tape cost @ \$1.50

7. 1 Pair exam gloves cost @ \$.65

8. Weight 1 lb 4 oz

Combat Lifesaver Training

- Combat Lifesavers are primarily shooters, they are not junior medics. They should be trained to provide Lifesaving Care as the tactical situation permits. We know what the most common causes of preventable death are. They should be trained to treat these conditions.

Combat Lifesaver Tasks

- Rapid Casualty Assessment
- Control Hemorrhage
- Treat penetrating chest trauma
- Maintain airway
- Initiate Saline Lock
- Package casualty for transport

IV Infusion Tasks

Combat Lifesaver

- Initiate an IV infusion with a saline lock in a casualty suffering from hypovolemia

Saline Lock



Saline Lock



Saline Lock



Saline Lock



Saline Lock



Evacuation Tasks

- Package a casualty for evacuation using an improvised, Sked or Talon litter



Evac Care

Talon Litter





Anatolian / Reuters

Vehicle Life-saving Kit

- Attacks against lightly armored vehicles continue to be a source of injury and death to our Soldiers. Direct and indirect fire weapons, improvised explosive devices, and mines produce devastating effects.

HMMWV at 0630



Shrapnel from the RPG flew back through the driver's side and out the frame. The exit hole was elevated above the entry, indicating the RPG was fired from the road level, by an individual most likely at the crouch.



Vehicle Life-saving Kit

- Several initiatives ranging from improved armor kits, and sandbagging vehicle floors, to improving Soldier body armor, to changing Tactics Techniques and Procedures have addressed improving Soldier survivability. However, nothing substantial has been implemented to address providing adequate casualty care at the point of wounding in these scenarios.

Vehicle Life-saving Kit

- These convoys/patrols may or may not have a Combat Medic or even a Combat Lifesaver organic to the element. They must rely on equipment carried on the vehicles and on the individual to provide care and conduct evacuation.

Current Vehicle First aid Kit



Vehicle Life-saving Kit

- A need exists for a vehicle life-saving kit that can be carried on every vehicle traveling in a convoy or on a combat patrol within the current tactical theaters. Positioning this kit on less than every vehicle risks losing the ability if the vehicle it is loaded on is destroyed.

Vehicle Life-saving Kit

- This kit should provide a single unit of issue that will contain a supply of life saving medical equipment as well as a compact litter to facilitate casualty evacuation without causing further injury, utilizing any vehicle of opportunity.

RECOMMENDATION: The following is a supply list that should be included in vehicles to help provide life-saving care in the event of a roadside attack or explosion.

<u>Item</u>	<u>NSN</u>	<u>Cost</u>
- Talon II Litter	6530-01-452-1651	360.00
Litter Carrier	6530-01-504-9056	
60.00		
6- Cravats	6510-00-201-1755	
2.50 (15.00)		
4- Kerlix	6510-00-058-3047	.70
(2.80)		
4- Emergency Trauma Dressing	6510-01-492-2275	4.20
(16.80)		

2- Combat Application Tourniquets (36.00)	6515-01-521-7976	18.00
2- Petrolatum gauze (1.42)	6510-00-202-0800	.71
1- Nasopharyngeal Airway 2.73	6515-00-300-2900	
1- Casualty Blanket 6.45	7210-00-935-6666	
2- 6in Ace Wraps (2.40)	6510-00-935-5823	1.20
2-10-14 gauge 2.5-3 in catheters 1.65 (3.30)	UMH4252594 50s bx	
2-Sam Splints II 6.25 (12.50)	6515-01-494-1951	
2- Rolls 2 in Nylon Tape .54 (1.08)	15382 Ro	
1 Lg Abdominal Dressing 5.20	6510-00-201-7425	

Talon II Litter



VLSK



Point of Wounding Care

- The only place in the continuum of battlefield care where we can directly influence survivability is at the point of wounding. By training every soldier to provide point of wounding care we can save more lives on today's battlefield.